

Claims

1. A head drive control device for driving a head including a plurality of electrostatic actuators each  
5 including a diaphragm used also as or including a first electrode forming a wall surface of a discharge room communicating with a nozzle discharging a drop, and a second electrode opposing the first electrode, the diaphragm being deformed by generating an electrostatic force between the  
10 first electrode and the second electrode, wherein the first electrodes of the electrostatic actuators are combined electrically, the head drive control device comprising:

a part applying differently polarized potentials to the first electrode and the second electrode upon discharging  
15 said drop.

2. The head drive control device as claimed in claim 1, wherein said part applies a positively polarized potential to the second electrode.

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3. A head drive control device for driving a head including a plurality of electrostatic actuators each including a diaphragm used also as or including a first electrode forming a wall surface of a discharge room  
25 communicating with a nozzle discharging a drop, and a second

electrode opposing the first electrode, the diaphragm being deformed by generating an electrostatic force between the first electrode and the second electrode, wherein the second electrodes of the electrostatic actuators are combined

5 electrically, the head drive control device comprising:

a part applying differently polarized potentials to the first electrode and the second electrode upon discharging said drop.

10 4. The head drive control device as claimed in claim 3, wherein said part applies a positively polarized potential to the first electrode.

5 5. The head drive control device as claimed in claim 1, wherein maximum values of the differently polarized potentials applied to the first electrode and the second electrode have substantially equal absolute values.

20 6. The head drive control device as claimed in claim 3, wherein maximum values of the differently polarized potentials applied to the first electrode and the second electrode have substantially equal absolute values.

25 7. The head drive control device as claimed in claim 1, wherein waveforms of the differently polarized

potentials applied to the first electrode and the second electrode are pulse waveforms.

8. The head drive control device as claimed in  
5 claim 3, wherein waveforms of the differently polarized potentials applied to the first electrode and the second electrode are pulse waveforms.

9. An inkjet recording device recording an image by  
10 discharging an ink drop, the inkjet recording device comprising:

a head drive control device for driving a head including a plurality of electrostatic actuators each including a diaphragm used also as or including a first  
15 electrode forming a wall surface of a discharge room communicating with a nozzle discharging a drop, and a second electrode opposing the first electrode, the diaphragm being deformed by generating an electrostatic force between the first electrode and the second electrode, wherein the first  
20 electrodes of the electrostatic actuators are combined electrically, and the head drive control device comprises a part applying differently polarized potentials to the first electrode and the second electrode upon discharging said drop.

25 10. An inkjet recording device recording an image

by discharging an ink drop, the inkjet recording device comprising:

a head drive control device for driving a head including a plurality of electrostatic actuators each including a diaphragm used also as or including a first electrode forming a wall surface of a discharge room communicating with a nozzle discharging a drop, and a second electrode opposing the first electrode, the diaphragm being deformed by generating an electrostatic force between the first electrode and the second electrode, wherein the second electrodes of the electrostatic actuators are combined electrically, and the head drive control device comprises a part applying differently polarized potentials to the first electrode and the second electrode upon discharging said drop.